

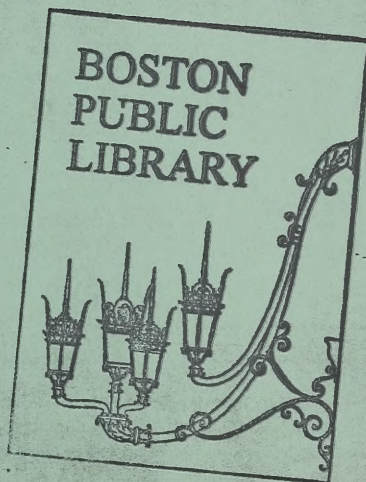
BRA

3071

gov. 00-1520 XG

STONE BROOK VILLAGE
JAMAICA PLAIN, MASSACHUSETTS

TRANSPORTATION ACCESS PLAN
for the
CITY of BOSTON
TRANSPORTATION DEPARTMENT
BOSTON, MASSACHUSETTS



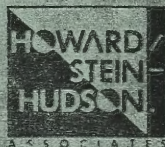
prepared for:

BROOKSIDE REALTY TRUST
4 Greenough Avenue
Jamaica Plain, Massachusetts 02130

prepared by:

HOWARD/STEIN-HUDSON ASSOCIATES INC.
38 Chauncy Street
Boston, Massachusetts 02111

APRIL 1988



TRANSPORTATION ACCESS PLAN
STONEY BROOK VILLAGE
JAMAICA PLAIN, MASSACHUSETTS
April 1988

TABLE OF CONTENTS

	<u>Page</u>
List of Figures	ii
List of Tables	ii
INTRODUCTION	1
Project Description	1
Study Methodology	1
EXISTING CONDITIONS	4
Surrounding Land Use	4
Roadway Network	4
Parking Supply	4
Public Transportation	5
FUTURE CONDITIONS	7
Project Assumptions	7
Project Trip Generation	7
Project Trip Distribution	10
Project Parking Requirements	10
CONSTRUCTION PERIOD ISSUES	12
Construction Activities	12
Construction Related Transportation Impacts	12
Construction Permitting	12
SUMMARY	13
APPENDIX A	

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Stoney Brook Village Site Location	3
2	Neighborhood Transportation Facilities	6
3	Stoney Brook Village Site Access and Circulation Plan	8

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Mode to Work for Jamaica Plain Residents	7
2	Person Trip Generation Rates for Residential Condominium Units	9
3	Stoney Brook Village Trip Generation	9
4	Parking Requirements for Residential Use in Jamaica Plain	11

INTRODUCTION

Project Description

The Stoney Brook Village project is a proposed residential development located at 57 - 67 Brookside Avenue in Boston's Jamaica Plain neighborhood. Vehicular and service access to the project will be provided from Minton Street. The project location and surrounding area is shown in Figure 1.

The development is comprised of 30 residential condominium units. The units will be priced for the middle income market (price range between \$100,000 to \$150,000). The basic features of the project are as follows:

- Site Area 37,649 SF
- Building Components:
 - Gross Area 31,722 SF
 - Unit Breakdown:
 - 1 bedroom 9
 - 2 bedrooms 12
 - 3 bedrooms 9
 - Total units 30
- Parking Spaces:
 - Resident 30
 - Visitor 9
 - Total spaces 39

The site is currently occupied by one and two story wood frame structures currently used as a woodworking factory and artist studios. Current zoning for the site is M-1 (manufacturing). A variance is being sought to build housing on the site compatible with surrounding R-.8 (residential) zoning.

Study Methodology

In accordance with the Access Plan requirements of the City of Boston, the following report identifies the transportation impacts of the project. The Boston Transportation Department¹ has identified the transportation issues involved with the proposed project at the Jamaica Plain location. The Boston Redevelopment Authority² will also review the Access Plan.

1. Discussions with Andrew McClurg, Boston Transportation Department, March 1988.

The Access Plan identifies the transportation and related conditions existing in the neighborhood including land use, roadway network, parking availability and public transportation accessibility. The Access Plan further identifies project related impacts on the neighborhood such as trip generation, trip distribution and parking requirements. In addition, construction related impacts are also addressed in the Access Plan.

2. Discussions with John Bell and Shirin Korde, Boston Redevelopment Authority, March 1988.



**HOWARD
STEIN
HUDSON**
ASSOCIATES

STONEY BROOK VILLAGE SITE LOCATION



Figure 1

EXISTING CONDITIONS

Surrounding Land Use

Land use surrounding the site is predominantly residential in character, interspersed with other uses. Residential use dominates the area east of Brookside Avenue to Haverford Street. Light industrial and manufacturing uses exist along the west side of Brookside Avenue to Amory Street, along with some residential development. Commercial development exists along Washington Street and institutional uses (Our Lady of Lourdes Parish facilities) are located in the vicinity of Brookside Avenue and Montebello Street. Local recreational uses includes a City park located at the southeast corner of Brookside Avenue and Cornwall Street and the Southwest Corridor Park along the MBTA right-of-way west of Amory Street.

Roadway Network

Brookside Avenue is a two-way roadway with parking allowed along the east side. The remaining local neighborhood streets are typically one-way facilities with varying parking restrictions. The local street network and traffic circulation patterns are shown in Figure 2.

All local arterials providing access to the more regional facilities are generally two-way roadways, also with varying parking restrictions. Vehicular access to the regional highway network is via the areas more regional roadway facilities of Washington Street, Columbus Avenue/Seaver Street (Route 28), Centre Street and the Jamaica Way (Route 1 and Route 203).

Parking Supply

Parking for residential and other purposes in the area is supplied by individual driveways. On-street parking also supplies a significant portion of the available parking reserve. The Our Lady of Lourdes Parish owns a parking lot at the northwest corner of Brookside Avenue and Minton Street.

Statistics indicate that approximately 54 percent of Jamaica Plain households own a car³. In addition, approximately 33 percent of all Jamaica Plain households that own one or more cars use on-street parking. This would indicate that about 61 percent of car owning households use on-street parking.

Due to the predominantly residential character of the neighborhood, peak on-street parking demand in the area is during the late evening or early morning periods⁴. A recent survey of on-street parking use in the area⁵ indicates

3. Boston Redevelopment Authority / NDEA Household Survey, 1985.

4. The Urban Land Institute, Shared Parking, 1983.

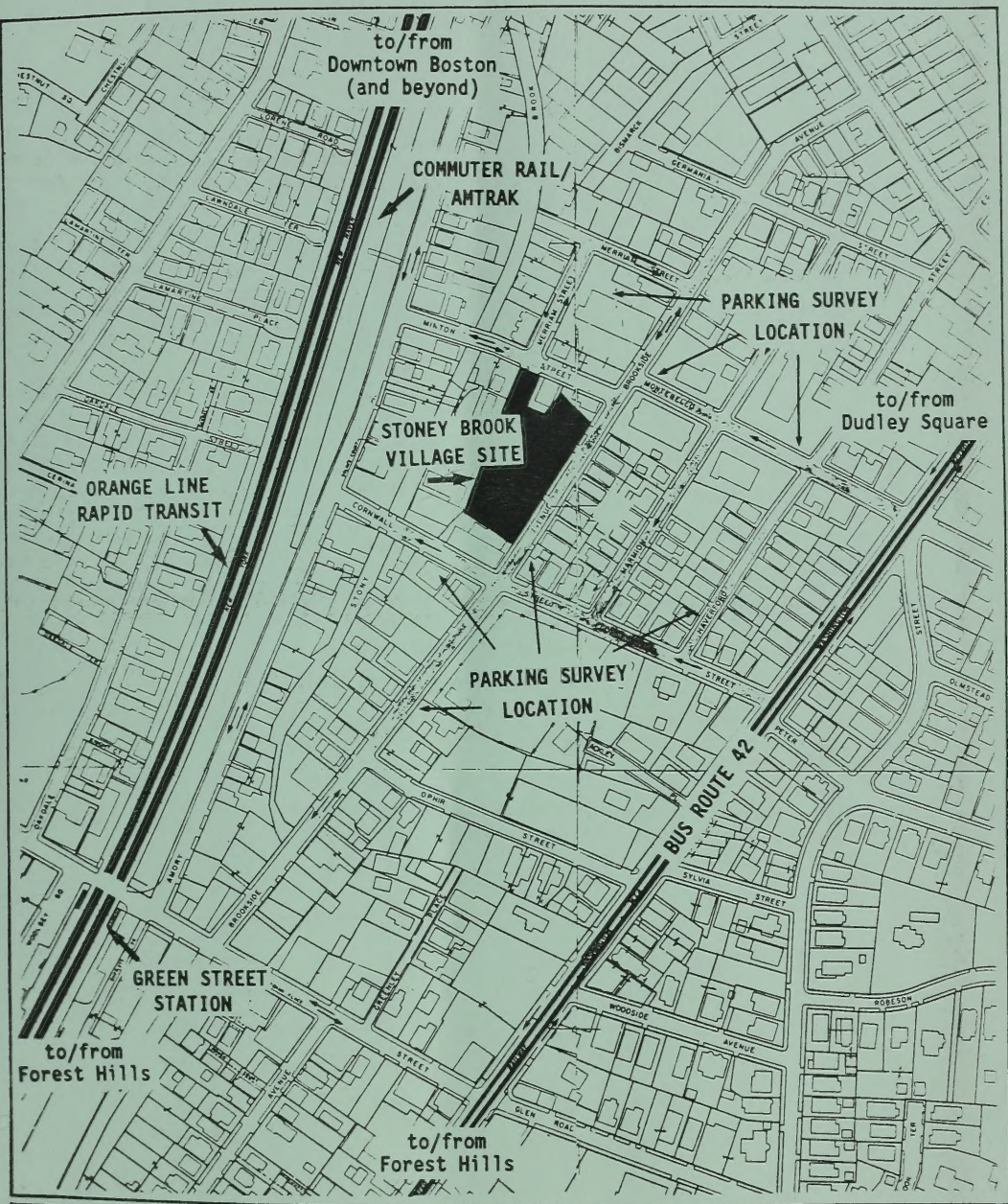
that, on average, existing parking use during peak demand periods on both weekdays and weekends utilizes only 35 percent of available on-street parking supply. Figure 2 also indicates the area streets identified in the on-street parking survey. The survey data are presented in Appendix A.

The survey indicates block faces with higher than average peak on-street parking use are generally those along Montebello and Cornwall Streets adjacent to Washington Street and along Brookside Avenue from Cornwall to Germania Streets. On-street parking supply is utilized at above 80 percent of capacity during both weekday and weekend peak periods along only one short block face, Montebello Street (south) between Haverford and Washington Street. This location is approximately three blocks removed from the Stoney Brook Village site.

Public Transportation

As indicated in Figure 2, the area is well served by public transportation. The Green Street station on the MBTA's relocated Orange Line is located at the southwest corner of Green Street and Amory Street, within a few blocks of the project site. The Orange Line rapid transit facility provides service between Forest Hills and Oak Grove (Malden). Downtown Boston and connections to other rapid transit and commuter rail facilities is directly accessible via the Orange Line.

Additional public transportation service is provided by Bus Route 42 along Washington Street, a few blocks north of the project site. Bus Route 42 provides service between Forest Hills and Ruggles Station, through Dudley Square.



FUTURE CONDITIONS

Project Assumptions

The Stoney Brook Village project consists of 30 residential condominium units with the provision of 39 off-street parking spaces. Figure 3 presents the site access and circulation plan for the project.

Vehicular and service access to the project is proposed from Minton Street. Signage will prohibit access to the project through the alley from Cornwall Street, however, provisions will be made for emergency vehicle access at this location. Access to the individual units is provided from both the parking lot off Minton Street and along Brookside Avenue.

Project Trip Generation

The expected trip generation characteristics of the Stoney Brook Village project is based on statistics published by the Institute of Transportation Engineers (ITE)⁶. These statistics are developed from surveys conducted nationally of similar land uses, mostly in locations where the automobile is the exclusive mode of transportation. For project trip generation, the data is adjusted to reflect the expected trip characteristics of mode choice and vehicle occupancy for residential uses in Jamaica Plain.

The trip characteristics of the project are assumed to be the same as that for the Jamaica Plain neighborhood of Boston as a whole. Table 1 presents the mode to work for Jamaica Plain as indicated by the Boston Redevelopment Authority (BRA) analysis of 1980 census data⁷.

TABLE 1 - MODE TO WORK FOR JAMAICA PLAIN RESIDENTS

<u>Mode to Work</u>	<u>Percent Using Mode</u>
Auto (drive alone)	35
Auto (carpool)	15
Public Transit	35
Walk Only or Other	<u>15</u>
All Modes	100

6. Institute of Transportation Engineers, Trip Generation Manual (Fifth Edition), 1987.

7. Boston Redevelopment Authority, Diversity and Change in Boston's Neighborhoods 1970 - 1980, 1985.

Assuming that carpool users only travel two to a vehicle, the average vehicle occupancy for Jamaica Plain residential use is estimated to be 1.3 persons per vehicle. Person trip generation rates for residential condominium use are presented in Table 2.

TABLE 2 - PERSON TRIP GENERATION RATES FOR
RESIDENTIAL CONDOMINIUM UNITS⁸

	<u>Average Daily</u>	<u>Morning Peak</u>	<u>Evening Peak</u>
Arrivals	9.03	0.10	0.57
Departures	<u>9.03</u>	<u>0.57</u>	<u>0.27</u>
Total	18.06	0.67	0.84

The total expected person trips for the project estimated in terms of mode of trip (walk, auto or public transportation) and by time of day (morning peak, evening peak and total daily) are presented in Table 3.

TABLE 3 - STONEY BROOK VILLAGE TRIP GENERATION

	<u>Average Daily</u>		<u>Morning Peak</u>		<u>Evening Peak</u>	
	<u>In</u>	<u>Out</u>	<u>In</u>	<u>Out</u>	<u>In</u>	<u>Out</u>
<u>Person Trips:</u>						
Auto	135	135	2	8	8	4
Transit	95	95	1	6	6	3
Walk	<u>41</u>	<u>41</u>	<u>0</u>	<u>3</u>	<u>3</u>	<u>1</u>
Total	271	271	3	17	17	8
<u>Vehicle Trips:</u>						
Total	108	108	7	1	7	3

A total of 271 daily person arrivals and 271 daily person departures are expected to be generated by the Stoney Brook Village development. During the morning peak hour period, approximately 17 persons will depart from the project and an equal number are expected to arrive at the project during the evening peak hour period. Accounting for mode choice and vehicle occupancy

8. ITE Land Use Code 230 (residential condominiums), adjusted for Jamaica Plain.

characteristics of the Jamaica Plain neighborhood, a total of 7 vehicles are expected to depart from or arrive at the project during the morning and evening peak hour periods, respectively.

Project Trip Distribution

Due to the relatively low volume of trips generated to and from the project, a detailed analysis of project related impacts to the transportation network is inappropriate.

For example, if all of the 6 morning peak hour transit trips were assigned to the Orange Line inbound, they would account for less than 0.05 percent of the directional peak hour capacity. Similarly, capacity on the outbound Orange Line during the evening peak hour commute would not be impacted. In terms of vehicle generated trips, the 7 vehicles expected to enter or leave the project during both peak hour periods translates to an average of 1 vehicle every 8.5 minutes and will not effect peak hour roadway capacity.

Project Parking Requirements

Three criteria have been used to assess the parking supply requirements of the Stoney Brook Village project. These criteria, specific to the Jamaica Plain neighborhood, include:

- Zoning requirements;
- Existing car ownership; and
- Marketing.

Zoning for residential use in Jamaica Plain requires 0.9 parking spaces per dwelling unit. Current zoning requires the provision of 27 spaces for a 30 unit residential development.

Automobile ownership in Jamaica Plain averaged 1.43 vehicles for car owning households, with only 54 percent of all households owning cars. Using these statistics, the 30 residential units would require parking for approximately 23 vehicles.

The availability of parking is an important marketing feature for residential developments. A recent parking survey of Boston residential projects indicates a range of parking supplied of between 0.92 and 1.0 spaces per unit for new residential developments.

Table 4 summarizes the parking requirements for each of the three criteria as they relate to Jamaica Plain.

9. HMM Associates, Transportation Study and Access Plan; Parkside West, Boston, Massachusetts, July 1986.

TABLE 4 - PARKING REQUIREMENTS FOR RESIDENTIAL USE
IN JAMAICA PLAIN

<u>Criteria</u>	<u>Parking Required</u>
Zoning	27
Existing car ownership	23
Marketing	28 - 30

The Stoney Brook Village project will provide a total of 39 off-street parking spaces. A total of 30 spaces will be designated resident parking and sold with each condominium unit. The remaining 9 spaces will be designated visitor parking and will be owned in common by the condominium association.

The overall parking ratio for the Stoney Brook village project has been proposed at 1.3 parking spaces per unit. The parking ratio for designated residential spaces for the project is at 1.0 parking spaces per unit. This ratio adequately meets all three parking requirement criteria.

CONSTRUCTION PERIOD ISSUES

Construction Activity

Construction of the Stoney Brook Village project is expected to be completed in two phases. The first phase of the project will consist of 18 units and the remaining 12 units will be constructed during the second phase. Construction of the first phase is expected to last approximately 8 months and the second phase will continue for about 7 months.

The average number of workers on site during the construction period is expected to be about 12 persons. The maximum number of construction workers at any time is expected to be around 24 persons.

Construction Related Transportation Impacts

Construction activity transportation impacts for a project of this size and location are concerned primarily with truck routing and scheduling of deliveries as they relate to impacts on local streets. In addition, construction worker parking is also of concern.

Routing of trucks to and from the project site will avoid the use of residential streets as much as possible. Heavy trucks will be required to access the site from Minton Street. Access to Minton Street from the local street network will be from Amory Street. For example, access from Washington Street will be via Green Street to Amory Street.

Scheduling of heavy trucks will be during off peak travel periods to avoid impacts on area street capacities and pedestrian activities associated with commuters using the Green Street transit station. Scheduling of truck deliveries during off peak periods will also avoid conflicts with activities at the Our Ladies of Lourdes Parish School.

Construction workers will be encouraged to use transit or carpools to the job site. Maximum use of the project site will be made to serve worker parking. Construction workers who drive to the job will be required to park on the project site when possible.

Construction Permitting

The developer and contractor will comply with all City permitting procedures as required by the Inspectional Services, Public Works and Transportation Departments.

SUMMARY

The Stoney Brook Village development will not produce significant transportation related impacts on the surrounding neighborhood.

Vehicular access to the project will be provided through an existing curb cut on Minton Street. Service access to the project will be through the same driveway. Access through the alley to Cornwall Street will be prohibited.

Vehicular use is very low during peak hour periods and the development is not large enough to produce a significant impact on transit capacity. Sufficient on-site parking will be provided to meet both residential and visitor parking demand. The project will not produce spillover parking onto neighborhood streets and will not have any impact on local on-street parking capacity.

Construction activity transportation related impacts will be minimized through the use of on-site staging and materials storage. Construction worker parking will be accommodated on the project site as much as possible. Routing of truck deliveries will minimize conflicts with local activities.

APPENDIX A

STONEY BROOK VILLAGE

ON-STREET PARKING SURVEY DATA

STONEY BROOK VILLAGE ON-STREET PARKING SURVEY *

Block Face	Parking Spaces	April 10, 1988		April 12, 1988	
		Vehicles Parked	Percent Occupied	Vehicles Parked	Percent Occupied
A Minton St. (north) from Amory to Merriam	12	0	0	4	33
B Merriam St. (west) from Minton to Merriam	12	6	50	5	42
C Merriam St. (north) from Brookside to Merriam	16	2	13	1	6
D Merriam St. (south) from Brookside to Merriam	9	3	33	2	22
E Merriam St. (east) from Minton to Merriam	9	0	0	0	0
F Minton St. (north) from Merriam to Brookside	6	0	0	0	0
G Brookside Ave. (west) from Merriam to Minton	5	0	0	0	0
H Brookside Ave. (west) from Merriam to Germania	9	3	33	4	44
K Brookside Ave. (east) from Montebello to Germania	14	11	79	9	64
L Montebello St. (north) from Brookside to Harmon	3	0	0	0	0
M Montebello St. (north) from Harmon to Haverford	7	2	29	1	14
N Montebello St. (north) from Haverford to Washington	6	4	67	5	83
O Montebello St. (south) from Haverford to Washington	6	5	83	6	100
P Montebello St. (south) from Harmon to Haverford	5	4	80	2	40
Q Harmon St. (east) from Montebello to Cornwall	0	0	0	0	0

STONEY BROOK VILLAGE ON-STREET PARKING SURVEY (cont'd) *

Block Face	Parking Spaces	April 10, 1988		April 12, 1988	
		Vehicles Parked	Percent Occupied	Vehicles Parked	Percent Occupied
R Marmion St. (west) from Montebello to Cornwall	17	12	71	14	82
S Montebello St. (south) from Brookside to Marmion	5	0	0	0	0
T Brookside Ave. (east) from Montebello to Cornwall	20	14	70	14	70
U Brookside Ave. (west) from Minton to Cornwall	0	0	0	0	0
V Minton St. (south) from Amory to Brookside	16	6	38	6	38
W Amory St. (east) from Minton to Cornwall	11	1	9	1	9
X Cornwall St. (north) from Amory to Brookside	12	0	0	0	0
Y Cornwall St. (north) from Brookside to Marmion	9	6	67	3	33
Z Cornwall St. (north) from Marmion to Haverford	6	4	67	3	50
AA Cornwall St. (north) from Haverford to Washington	8	4	50	2	25
BB Cornwall St. (south) from Brookside to Washington	0	0	0	0	0
CC Brookside Ave. (east) from Cornwall to Ophir	17	4	24	7	41
DD Brookside Ave. (west) from Cornwall to Ophir	0	0	0	0	0
EE Cornwall St. (south) from Amory to Brookside	13	0	0	0	0
Church Parking Lot	15	2	13	1	7
TOTAL	268	93	35	90	34

* conducted between 5:00 - 6:00 AM on the indicated dates.



STONE BROOK VILLAGE PARKING SURVEY LOCATION MAP